INDEX

Prepared by Doctor C. M. WOODWORTH of the Agronomy Department, UNIVERSITY OF ILLINOIS, Urbana, Illinois, and Mrs. ANNA BILL WOODWORTH. Page numbers in black-faced type refer to headings of articles or of sections. Numbers in italics indicate references included in the lists of "Literature cited."

AIDA, TATUO 250, 251
ÅKERMAN, A. 319, *331*
Albinism
  Ambystoma tigrinum 250
  Aplocheilus lalipes 250
  Birds 249
  Guinea-pigs and other animals 247
  Horses 249
  Linkage with other genes 248
  Maize 442, 443, 444, 448
  Mouse 240
  Rabbit 240
  Rana clamitans 250
  Rat 240
  Salamander 250
Albino rats
  Sex ratio in 351
    Effect alcohol on 351, 352, 353
Albino series
  Mouse 240
  Rabbit 240
  Rat 240
Albino series in guinea-pigs 223
  Change in color with age 228
  Classification of 240
  Compounds 229–233
  Differences within litters 235
  Effect cold on 228
  Effects of on black and yellow 223
  Intense compounds of 234
  Nature of genes 237
  Relationship of genes 236
Alcohol
  Effect of on sperm 357
  Sex ratio 351
    Albino rats 351, 353
    Fowl 355, 356
    Guinea-pig 355, 356
    Mice 357
ALLARD, H. A. 319, *331*
ALLEN, C. E. 1, 2, 3, 4, 8, 9, 10, 12, 13, *16*, 72, 73, 75, *78*
ALLEN, G. M. 275, *277*
Allium
  Pale green type in 319
ANDERSON, E. G. 180, 322, 403, 407, 412, 413, *417*, 418, 419, 431, 433, *440*
ANDERSON, E. R. 142, 163
ANDERSON, E. W. 237
Angiosperms
  Gametophyte generation in 359
Antirrhinum
  Aurea pale green type in 318, 319
Aquilegia
  Pale green type in 319
Arabis
  Pale green type in 319, 329
AUSTIN, C. F. 72, *79*
Autosomes
  Drosophila
    Effect X-Rays on 470
Avena
  Pale green type in 319

BALDWIN, BIRD T. 34, 115
Bar mutations
  Frequency of in Drosophila 131
BATESON, W. 241, *251*, 595
BAUR, E. 77, *79*, 318, 319, *331*, *332*
BELLING, JOHN 59, 61, 62, *69*, *70*, 83, *85*, 296, *304*, 589, *592*
Bilateral asymmetry
  Inheritance of in Bruchus 261
  Origin of in Bruchus 261
  Piebald trait, an instance of in Bruchus 276
  Sex-limited in Bruchus 261
BLAKESLEE, A. F. 61, 62, *70*, 383, *387*
BLUHM, A. 356, *357*
BOEDIJN, K. 211, 212, 216, 218, 221, *222*
BOOTH, N. O. 307, 315, *317*
BREITENBECHER, J. K. 261, 262, 275, *277*
BRIDGES, C. B. 120, 121, 133, 138, 141, 142, 143, 144, *146*, 154, 156, 163, 170, 172, *178*, 275, *277*, 345, 348, 349, 407, 411, 412, 413, 414, 415, *417*, 418, 419, 431, *441*, 471, 472, 473, *506*
BRINK, R. A. 86, *89*, 359, 360, 371, 372, 376, 384, *387*
BROOKS, FRANK C. 275, *277*
Bruchus
  Absence of Y chromosome in 275
  Inheritance of piebald in 266
  Inheritance of sex-limited bilateral asymmetry in 261
  Piebald trait in 276
  Selection in 275
  Symmetry in 275
BRUNSON, A. M. 319, 320, 325, *332*, 454, *455*
BUCHHOLZ, J. T. 383, *387*

Canna
  Triploid, 60, 61
Capsella bursa-pastoris
  Pale green type in 319, 329
CAROTHERS, E. E. 381, *387*
CARRUTHERS, D. 62, *70*

CARVER, W. A. 305
CASTLE, W. E. 17, 18, 19, 21, 24, 26, 27, 30, *31*, 224, 225, 229, 230, 233, 240, 241, 248, *251*, 398, *401*, **580**, 594, 595, *603*
Character
  Separate-spore, in Sphaerocarpos *73*
    Independence of, and polyclady 77
    Independence of, and tuftedness 77
    Linkage of, with sex 77
  Variable, of wasp **91**
Characters
  Inheritance of, in wheat **286**
  Linked and independent, in Sphaerocarpos 77, 78
  Relation to chromosome number in wheat **296**
  Rust resistant segregates of wheat hybrids **299**
  Sporophytic
    Inheritance of, in Sphaerocarpos **72**
Chlorophyll
  Content in pale green types of maize 320
Chromosome behavior
  Drosophila **345**
Chromosome map length
  Standard error of **510**, 511, 512
Chromosome number
  Chrysanthemum 278
  Doubling of in Nicotiana 282
  Nicotiana glutinosa 278
  Nicotiana tabacum 278
  Primula floribunda-verticillata hybrid 283
  Relation to plant characters in wheat **296**
  Rosa 278
  Tetraploidy, a method of increase in 278
  Tetraploid *glutinosa-tabacum* hybrid 281
  Triticum 278
Chromosomes
  Bivalent in Hyacinth **64**
  Diploid Hyacinth **59**, **62**
  Galtonia (*Hyacinthus*) *candicans* 69
  Homologous in Hyacinths **59**
  Hyacinthus orientalis 62, 69
  Hyacinthus orientalis albulus 62
  Hyacinthus romanus Desf. 62
  Number of in Coix 81
  Number of *Ischaemum anthephoroides* 81
  Number of in maize varieties and hybrids **80**, 81, 84
  Number of *Saccharum officinarum* 81
  Number of in *Saccharum spontaneum* 81
  Similar in Hyacinth **66**
  Tradescantia virginiana 60
  Triploid Hyacinth **59**, 68
  Trivalent in Hyacinth **68**
CLAUSEN, R. E. **278**, 279, *284*
CLEMENTE, L. S. 17, 20, 23, 27, 28, *31*
COBB, MARGARET, V. 529, *568*
Coincidence
  Drosophila **429**
  Standard error of **509**, **513**, 514, 515, 516, 517
Coix
  Chromosome number in 81
  Segregation in pollen grains of starchy × glutinous 86
COLE, L. J. 249, *251*, 595, 596, 597, *603*
COLLINS, G. N. *85*, 86, *89*, *326*, *332*, 360, 362, 369, *387*
COLLINS, J. L. 283, *284*
Conjoined twins
  Symmetry reversal in **531**
    Handedness 535, 537
    Whorl of head-hair **534**, 537
Correlation
  Average between twins of like sex **571**
  Calculation of intraclass 571
  Characters in wheat **285**, **290**
  Rust resistance and *durum* characters in wheat 300
  Rust resistant and other characters in wheat **298**
  Twins of like sex 572
  Twins of unlike sex **570**
CORRENS, C. 318, 319, 329, *332*, 382, 383, *387*
Coupling
  Japanese morning-glory **462**
  Mice **23**
CRAIG, A. G. 307, *317*
CRANE, M. B. 315, *317*
Crepis
  Polyploid mutations in **583**
Crepis capillaris
  Chromosomes of 586
  Pentaploid mutant of **583**, 587
    Origin of 589
  Triploid mutant of **583**, **586**
Crepis virens 586
Crossing over
  Attached X chromosome in Drosophila **162**
  Double, "Recurrent" and "Progressive" 429 430
  Drosophila, **403**, **411**
  Four-strand stage in Drosophila 407
  Genes for yellow pigment in maize 445, 446, 449
  Japanese morning-glory 457–469
  Kinds and frequencies of shown by emerging chromosomes **428**
  Multiple in triploid females of Drosophila 429
  Mutations **121**
  No evidence of, between orange and defect in wasps 113
  Relation to sex in mice **27**
  Sugary and defective endosperm in maize 398
  Three X chromosomes in Drosophila **166**
  Triploid females of Drosophila **160**
  Types present in associated chromosomes **433**–439
  Unequal in Drosophila **117**
  X chromosomes of triploid females of Drosophila **418**
Crossover values
  Color and dark-eye in mice 17, 23, 29, 30, 31
  Color-dilution and dark-eye in mice 23
  Forked, bar and fused **132**
  Probable errors of 17

Crossover (*continued*)
Standard errors of 28
Variability in 26
CUÉNOT, L. 593, *603*

DAHLGREN, K. V. O. 319, *332*
Dahlia, garden
Chromosome number in 60
Dahlia imperialis
Chromosome number in 60
DANFORTH, C. H. 538, *568*
DARBISHIRE, A. D. 17, 18, *31*
DARWIN, C. 595, *603*
Datura
Triploid 60, 61
DAVENPORT, C. B. 540, *568*, 593, *604*
Defect
Linkage of, with orange in wasp **112**
Defects
Inheritance of, in wasp **33**
DEMEREC, M. 86, *89*, 237, **318**, 324, 325, 330, 331, *332*, 360, 371, 372, *387*, 443, *455*
Dessication
Effect of, on pollen **380**
DETLEFSEN, J. A. **17**, 20, 23, 26, 27, 28, *31*, 224, 239, 240, *251*, 580, 581, *582*
DEXTER, EMILY, 557, *568*
Differential fertilization
Tests for, in tomato **314**
Differential viability
Mice 21
DIGBY, L. (Miss) 283, *284*
Dilution
Pigment in guinea-pigs and other animals **247**
Diptera
Chromosome behavior in 345, 349
DONCASTER, L. 595, 596, *604*
Double bar
Drosophila 118, 119
Double crossovers
Recurrent in Drosophila 429, 430
Progressive in Drosophila 429, 430
DRINKARD, A. W. 307, 315, *317*, 318, *333*
Drosophila melanogaster
Attached X chromosomes in **148**, **403**
Detachments of **415**
Point of attachment of **414**
Bar, crossover values for **132**
Breaking apart of attached X's in **152**
Composites in **173**
Crossing over among three X chromosomes of **166**
Crossing over between attached X chromosomes of **162**
Crossing over in **403**
Crossing over in triploid females of **160**
Crossing over in X chromosomes of triploid females of **418**
Deficiency due to unequal crossing over **143**
Effect X-Rays on autosomes of **470**
Reaction second chromosome to light dose **491**
Containing crossover inhibitors **492**
Reaction third chromosome to heavy does **486**
Reaction third chromosome to light dose **480**
Facet number in **133**
Effect of temperature on 134
Modifiers for 133
Selection for 133
Females with attached X chromosomes **150**
Forked, crossover values for **132**
Fused, crossover values for **132**
Mosaic of 148, 173
Multiple crossing over and coincidence in **429**
Non-disjunction in males of **172**
Patroclinous females in **151**
Polyploidy in **148**
Tetraploid female in **167**
Triploid female in **154**
Triploid females of
Crossing over in **418**
Triploids of **345**
Prophase chromosome behavior in **345**
Unequal crossing over in **117**
Cause of deficiency **143**
Exact nature of synapsis **145**
White eye mutation in 141
DUGGAR, B. M. 305, *317*
DUNN, L. C. 17, 18, 19, 21, 24, 26, 27, 29, 30, *32*, 247, 248, *251*, 580
DURHAM, FLORENCE M. 283, *284*
Dutch hyacinth
Varieties of 62

EAST, E. M. 101, *115*, 326, *332*
EATON, O. N. 228, 229, 230
ELDERTON, E. M. 558, *568*
EMERSON, R. A. 142, *146*, 194, *196*, 319, 320, 322, 323, 325, 326, 327, *332*, 383, 385, *387*, 400, 452, *455*
EMERSON, S. H. 326, *332*
Errors
Due to causes other than random sampling **520**, 521, 522
Observed vs. true values **518**, 519
Erythrodextrin
Carbohydrate in waxy maize 86
Occurrence of in maize **86**
Segregation in pollen of hybrids **86**
Stains reddish with iodine 86
ESCHER, H. H. 306, *317*
EYSTER, W. H. **179**, 180, 183, 194, *196*, 237, *251*

Facet number
Drosophila **133**
FARMER, J. B. 283, *284*
FARR 34
FELDMAN, H. W. 224, 240, *251*
Female gametophyte
Selective action in **371**
Festuca
Pale green type in 319
FISCHER, E. 275, *277*
FISHER, R. A. 513, *524*, 528, **569**, 570, 573, 576, 577, *579*

Focke, W. O. 279, *284*
Fraser, A. C. 367, 376
Fraser, W. P. 298, 303, *304*
Freeman, G. F. 285, *304*

Galton, F. 554, 555, 560, 561, *568*
Galtonia (Hyacinthus) candicans
  Chromosomes in 69
Gametophyte generation
  Angiosperms **359**
  Waxy character in **360**
Gärtner, C. F. 279, *284*
Gates, R. R. *222*, 283, *284*, 583, 588, *592*
Gilbert, A. W. 307, *317*
Goldschmidt, R. 275, *277*
Goodspeed, T. H. **278**, 279, 281, *284*
Gowen, J. W. 26, *32*, 494, *507*, 520, *524*
Groth, B. H. A. 308, *317*
Guinea-pigs
  Albino series of **223**
  Change in color with age **228**
  Compounds **229–233**
  Dilution of pigment in **247**
  Effect cold on albino series of **228**
  Method of grading color in **227**

Haak, Irma 4
Habrobracon juglandis
  Genetic factors for defective venation in **91**
  Heterozygous females of **104**
  Heterozygous females × parthenogenetic males of **108**
  Inheritance
    Defects **33**
    Sterility **33**
  Linkage in of orange with defect **112**
  Linkage relations of sooty chest in **113**
  Parthenogenetic males of **105**
  Patroclinous males **41**
    Abnormalities in external anatomy of **41**
    Crosses producing **34, 39**
    Daughters of **51**
      Abnormalities in external anatomy **51**
      Fertility in **54**
      Internal anatomy of **55**
    Fertility in **42**
    Internal anatomy of **50**
    Mosacis in **42**
  Selection in **91, 93**
Hadrobracon brevicornis 33
Haecker, V. 247, 250, *252*
Haldane, J. B. S. 17, 21, *32*, 248, *252*
Haldane, N. H. 248, *252*
Haldane, N. M. 17, 21, *32*
Hallqvist, C. 319, *333*, 383, *387*
Halsted, B. D. 307, *317*
Handy, Virginia 352, *357*
Hanson, F. B. **351**, 352, 356, *357*
Harris, J. A. 571, *579*
Hauber U. A. **91**
Hayes, H. K. 179–184, 186, *196*, 285, 286, 299, 300, 302, *304*, 326, *332*
Haynes, Caroline C. 72, *79*
Hedrick, U. P. 307, 315, *317*
Hemerocallis fulva
  Triploid 61
Henmon, V. A. C. 528
Heribert-Nilsson, N. 383, *387*
Hersh, A. H. 134, *146*
Hersh, R. K. 134, *146*
Hesperis matronalis
  Petal color in 183, 189, 194
Heterogeneity
  Distribution of ears segregating for waxy and non-waxy maize **365**
  Interpretation of in waxy and non-waxy maize **376**
Heys, Florence **351**
Holt, Caroline 345, *349*
Hordeum
  Pale green type in 319
Howe, M. A. 72, *79*
Hull, Clark L. 527, 528
Hunt, H. R. *252*
Hurst, C. C. 310, *317*
Hutchison, C. B. 326, 330, *333*
Hyacinths
  Diploid **59, 62,** 70
    Homologous chromosomes in **59**
    Similar chromosomes in **59**
      Measurements of 64
  Triploid **59,** 61, 62, **68,** 70
    Homologous chromosomes in **59**
    Similar chromosomes in **59**
Hyacinthus orientalis
  Chromosomes in 62, 69
Hyacinthus orientalis albulus
  Chromosomes in 62
Hyacinthus romanus
  Chromosomes in 62
Hybrid
  Primula floribunda-verticillata 278, 283
  Tetraploid *N. glutinosa-N. Tabacum* **278–283**
Hybrids
  Segregation of starch and erythrodextrin in pollen of corn **86**
  Triticum durum-Triticum vulgare **285**
Hyde, Edith 60, 62, 64, *70*
Hyrtl, J. 539, *568*

Ibsen, H. L. 227, *252*
Imai, Yoshitaka, **456,** 457, 462, *469*
Infrabar eye 118
  Origin of 125
Inheritance
  Characters in wheat **286**
  Defects in wasp **33**
  Japanese morning-glory 456
    Contracta and white marginal flower **456**
    Yellow leaf and brownish flower **456**
  Pale green seedlings in maize **318**
  Pisum **197**
    Scimitar pod **197**
  Sex-limited bilateral asymmetry in Bruchus **261**
  Spotting in Bruchus **264, 266**
    Back cross tests for 269, 270, 271, 272, 273
  Sterility in wasp **33**

Inheritance (*continued*)
Sweet-defective in maize **395**, 396, 397
Tomatoes **305**
White plumage in pigeons **593**
Dominant white 593, **597**, 598
Mottle black 594, **602**, 603
Mottle white 594, **601**, 602
Recessive white spotting 593, **599**, 600
Ipomea
Pale green type in 319, 329
Ischaemum anthephoroides
Chromosome number of 81
ISHIKAWA 60, *70*

JACKSON, C. M. 352, *357*
Japonica
Maize 443
JENKINS, M. T. 450
Japanese morning-glory
Close linkage in **456**
Contracta and white margined flower in **456**
Coupling in **462**
Repulsion in **468**
Yellow leaf and brownish flower in **461**
JONES, D. F. 89, 101, *115*, 307, 315, *317*, 382, *387*
JONES, W. FRANKLIN 538, 540, *568*
JORDAN, H. E. 538, 539, *568*

KAJANUS, B. 319, *333*
KELLEY, T. L. 513, *524*
KEMPTON, J. H. 360, 362, 369, 376, *387*
KIESSELBACH, T. A. **80, 86**
KIHARA, H. 296, *304*
KING, HELEN DEAN 224, 239, *252*, 354, *358*
KLINE, GEO. 192, 194
KNOWLTON, H. E. 380, *387*
KRAFKA, J. 134, *146*
KRAMER, EMILY 560, *568*
KURTZWEIL, C. 285, *304*
KUWADA, Y. 80, 81, 83, *85*
KVAKAN, P. 325, *333*

LANCEFIELD, D. E. 144, *146*
LANGNER, G. 480
LAUTERBACH, C. E. **525**, 561, 570, 573, 574, 575, 576
LEFKOWITZ, H. 480
LENZ, F. 228, *252*
LEVINE, M. N. 298, 299, *304*
LINDSTROM, E. W. **305**, *317*, 319, 320, 330, *333*, 395, *401*, **442**, 443, 448, 454, *455*
Linkage
Japanese morning-glory **456**
Maize **448–451**
Relations in **325**
Relations of factors for yellow pigment **442**, 445, 446, 448
Sweet-defective in sugary endosperm 395, **397**, 398
Tests for **326, 327**, 328
Mice
Dark-eye and color **17**
Dilute color factor and dark-eye 23
Red-eye and pink-eye 26
Rats 26
Red-eye and pink-eye 26
Sex difference in, in rats and mice **580**
Variations of, in rats and mice 26
Wasps
Black eye and sooty chest **113**
Defect and sooty chest **114**
Orange with defect **112**
LITTLE, C. C. 209, *210*
LITTLE, FRANK R. 261
LOMBROSO 541
LONGLEY, ALBERT E. 80, *85*, 86, *89*
LOUNSBURY, J. A. 3, 73
Lychnis
Sex chromosomes in 77
Sex linked character in 77, 78
Lychnis dioica
Pale green types in 329
Lycopersicum
Pale green variety of 318
Lycopersicum esculentum
Inheritance in **305**
LYNCH 121

MACDOWELL 357
MACGILLIVRAY, J. H. 86, *89*, 360, 371, 372, 384, *387*
Maize
Anthocyan pigment 325
Brown aleurone 325
Chromosome number of **80**, 81, 84
Chromosome number of ×*Teosinte* **81**
Dwarf plant 326
Factor pairs for aleurone color **326**
Genetic factors for yellow pigment in **442**
Linkage of **448**, 449, 450, **451**, 452, 453
Golden 319, 331
Inheritance pale green seedlings in **318**
Linkage in, between sweet-defective and sugary endosperm **395, 397**
Mosaic pericarp in **179**
Occurrence of starch and erythrodextrin in **86**
Origin of 85
Pale green types
Chlorophyll content of 320, 321
Description of 319, 321, **322**, 323, 329, 330, 331
Intercrosses between **323**, 324
Linkage relations **325**
Origin of 322, 323
Xanthophyll content of 320, 321
Shrunken endosperm 326
Sugary endosperm 326
Variability due to factor mutations 85
Waxy endosperm 326
Xantha 319, 320, 321, 329, 331
Yellow endosperm 326
MANN, MARGARET C. 279, 283, *284*
MATHEWS, J. H. 542
MATTOON, E. W. 133, *147*
MAVOR, J. W. 470, 472, 474, 475, **482, 487, 491, 492, 494**, 502–*507*

MAY, H. G. 120, 133, *146*
Melandrium
  Pale green type in 319, 329
Mendelian ratios
  Gametophyte generation **359**
Mercurialis
  Pale green type in 319
MERRIMAN, CURTIS 529, 530, 554–556, 558, 561–563, 566–*568*
Method
  Administering alcohol to albino rats 351
  Administering alcohol to male mice 356
  Breeding parasitic wasp 100
    Application of 103
  Calculating correlation 527, 528, 541
  Extracting chlorophyll in maize 320
  Grading color in guinea-pigs **227**
  Study of mosaic pericarp in maize **180**
Methods
  Breeding Bruchus **262**
  Staining chromosomes in pollen mother cells of maize 83
  Statistical examination of LAUTERBACH'S measurements on twin resemblance **569**
METZ, C. W. 139, *146*, **345**, 348–*350*
Mice
  Coupling in **23**
  Crossing over in 581
  Differential viability in 21
  Linkage of dark-eye and color in **17**
  Parental selection in 23
  Repulsion in **19**
  Sex difference in linkage in **580**
MILLER, E. C. 362, *387*
MINER, J. R. 580, 581, 582
Mirabilis
  Pale green type in 318, 329
MIYAZAWA, BUNGO 461, 462, 468, *469*
Modifying factor for waxy in maize **367**
MOHR, O. L. 141, 143, *146*
DEMOL, W. E. 60, 61, 62, 64, 68, *70*, 588, *592*
Monozygotic twins
  Identification of **528**
  Measurements of 545, 546, 547
  Palm patterns in **542**
MORGAN, L. V. 124, 141, 142, *146*, **148**, 150, *178*, 403, *417*, 419, 421, 431, 433, *441*
MORGAN, T. H. 120, 121, 122, 133, 138, 144, *146*, 154, 172, *178*, 237, *252*, 414, *417*, *144*, 471, 473, *506*, 595, 596, *604*
Morus
  Behavior of chromosomes in triploid 61
Mosaic patterns in maize
  Description of **181**
  Frequency of **184**
  Heavy **186**
  Inheritance of **183**
  Light **185**
  Previous study of **179**
Moss
  Triploid 61
MÜLLER, H. A. C. 62, *71*
MULLER, H. J. 140, 141, *147*, *470*, 471, 484, *507*, **509**, 523, *524*
MULLER, JESSIE M. JACOBS **509**
Multiple crossing over
  Triploid females of Drosophila **429**
Mutant characters
  Drosophila **162**, **163**
Mutations
  Crossing over in Drosophila **121**
  Due to unequal crossing over? **140**
  Polyploid in Crepis **583**
MYERS, M. T. 368

NAVASHIN, M. **583**, 586, *592*
NETTLESHIP, E. 240, 248, *252*
NEWMAN, H. H. 528–535, 543, 544, 546, 549, 567, *568*
NEWTON, MARGARET 298, *304*
NEWTON, W. C. F. 69, *71*
Nicotiana
  Glutinosa
    Chromosome number in 278
    Description of 278
  Interspecific hybridization in **278**
  Pale green type in 319
  Tabacum
    Chromosome number in 278
    Description of 278
  Tetraploid *Glutinosa*×*Tabacum* hybrid **278**, 281
NILSSON-EHLE, H. 319, *333*
NOACK, K. L. 319, *333*
Non-disjunction in Drosophila males **172**
NONIDEZ, JOSÉ F, 349, *350*
NUTTING, C. C. 34, 115

Oenothera
  Triploid 61
Oenothera Lamarckiana Semigigas
  Fourteen chromosome offspring of **221**
  Interchromosomal correlations in **220**
  Mutant races derived from **221–216**
  Sixteen and seventeen-chromosome mutants of **218**
Orange
  Linkage of, with defect in wasp **112**
OSAWA, I. 61, *71*

PAPANICOLAOU, G. N. 355, 356, *358*
Papaver
  Pale green type in 319
PARKER, J. H. 285, *304*
PARNELL, F. R. 86, *89*, 384, *388*
Patrocliny
  Cause of high grade wing defect in parasitic wasp 103
PEARL, RAYMOND 352, 355–*358*, 580–582
PEARSON, KARL 240, 248, *252*, 527, 528, 557, 561, *568*, 576
Pelargonium
  Pale green type in 319
PELLEW, CAROLINE 283, *284*
PERCIVAL, J. 286, *304*
Pericarp in maize
  Color and pattern changes in **192**
  Colorless **191**

Pericarp in maize (*continued*)
Mosaic **179**
Nature of changes from orange to mosaic 192
Orange **189**
Self-red **191**
PETERSON, N. F. **80, 86**
Pharbitis nil
Crossing over in 469
Pigeons, inheritance white plumage in **593**
Dominant white **597**
Mottle black **602**
Mottle white **601**
Recessive white spotting **599**
Pisum arvense
Ineritance of scimitar pod in **197**
Inheritance studies in **197**
Types studied **198**
Pisum sativum var. arvense 197
PLOUGH, H. H. 471, 474, 503, *507*
Polemonium
Pale green type in 319
Pollen
Segregation of starch and erythrodextrin in, of corn hybrids **86**
Pollen-tube growth
Differential **371**
Selective fertilization 382, 383
Polyclady
Determiners for, in Sphaerocarpos 14
Polyploidy
Drosophila *148*
Origin of 588
POTTER, ISABEL 96, *116*
Presence and absence
Quantitative view of mutation **143**
PRICE, H. L. 307, 315, *317*, 318, *333*
Primula kewensis
Primula floribunda-verticillata hybrid 278
Chromosome number in 283
Probable error
Formula for 352

RANKIN, JANET R. 563, *568*
RASMUSON, H. 319, *333*
RASMUSON, J. 319, *333*
Rats
Crossing over between albinism and red-eyed yellow in 581
Crossing over between C and R and R and P 582
Linkage in, of red-eye and pink-eye 26
Linkage map for females 582
Sex difference in linkage in **580**
Variations of linkage in 26
RENNER, O. 283, *284*
Repulsion
Japanese morning-glory **468**
Mice **19**
Rice
Segregation in pollen grains of starchy ×glutinous varieties 86
RICHARDSON, DALTON 480
RICKETT, H. W. 3, 73
RIDDLE, OSCAR 249, *252*
RIDGWAY, R. 229, *252*, 321, *333*
ROBERTS, E. 17
RUYSENAARS, A. (Miss) 480

Saccharum officinarum
Chromosome number of 81
Saccharum spontaneum
Chromosome number of 81
SANO, F. 532, *568*
SAX, KARL 285, 286, 296, 297, 300, *304*
SCHATZ 532
SCHULTZ, WALTHER 229, *252*
SCHUNCK, C. A. 306, *317*
SCHWEITZER, J. 61, *71*
Scimitar pod
Crosses involving 200, 201, 202, 204, 205
Inheritance of, in Pisum **197**
Secale
Pale green type in 319
Selection
Analysis, by, of genetic factors for defective venation in wasp **91**
Effective in parasitic wasp 99
Effect of, on defective venation in wasp 93,97
Ineffective in parasitic wasp 97
Selective elimination of zygotes **370**
Selective fertilization in heterozygous waxy corn **375**
SETCHELL, W. A. 278, *284*
SETTLES, F. (Miss) 480
Sex-limited inheritance
Bruchus **261**
Cause of, in insects 275
Sex ratio
Albino rats 351, 353
Alcohol 351
Fowl 355
Guinea-pig 355
Mice 357
Formula for 352
Variability of 352, 354
Decrease in inbred lines 354
SEYSTER, E. W. 134, *147*
SHOWALTER, A. M. 3, 73
SHULL, G. H. 77, *79*, *222*, 319, 329, *333*, 595
Solanum
Triploid 61
Sooty chest
Linkage relations of, in wasp **113**
Sorghum
Chromosome number of 81, 84
Spaeth 532
Sphaerocarpos
Characteristics of polycladous races 2
Differences in polycladous males and females 7, 8
Gametophytic inheritance in **1**
Inheritance of sporophytic characters in **72**
Polycladous character in **1**
Sterility of polycladous males of 9
Sphaerocarpos Donnellii, **1**, 15
Sphaerocarpos Donnellii Aust **72**, 78
Spores of, separate at maturity 72
Spores of, united in tetrads 72

Sphaerocarpos texanus Aust 1
Sporogenesis
  Chromosome combinations during 589
  Irregularities at **371**
SPRUNT, A. D. 17, 21, *32*, 248, *252*
STAKMAN, E. C. 298, 299, *304*
Standard deviation
  Mendelian ratios 366
Standard errors
  Chromosome distances **509**
  Coincidence **509, 513,** 514, 515, 516, 517
  Difference 522
  Map length **510,** 511, 512
  Use of **518**
STARCH, DANIEL 561, *568*
Starch
  Occurrence of, in maize **86**
  Segregation of, in pollen of corn hybrids **86**
  Stains blue with iodine 86
STAPLES-BROWN, R. 595, *604*
Sterility
  Inheritance of, in wasp **33**
  Polycladous males of Sphaerocarpos 9
STEVENS, N. M. 345, *350*
STOCKARD, C. R. 355–*358*
STROMAN, G. N. 331, *333*
STRONG, R. M. 249, *252*
STURTEVANT, A. H. **117,** 120, 121, 122, 142, *147*, 156, 163, 237, *252*, 409, 414, 415, *417*, 419, 431, 433, *441*, *507*
Sugary endosperm
  Linkage between, and sweet-defective in maize **395, 397**
Sugary gene
  Effect on ratio of waxy and non-waxy seeds **368**
SUMNER, F. B. 248, *252*
SVENSON, H. K. *507*
Sweet-defective
  Inheritance of, in maize **395**
  Linkage between, and sugary endosperm in maize **395, 397**

TAYLOR, W. P. 61, *71*
Technique
  Making up test stocks of Drosophila for X-Ray experiments **472**
  Statistical treatment of data on X-Rays on Drosophila **494**
  Tabulation of linkage counts in Drosophila 477, 478, 479
  X-Ray dosage used on Drosophila 475
Teosinte
  Chromosome number in 81, 84
  Chromosome number in, × maize 81
  Progenitor of maize 85
TERMAN, LEWIS M. 526, 562, 563, *568*
THOMPSON, W. P. **285**
THORKELSON, BETTY **4**
THORNDIKE, E. L. 526, 554, 555, 558, 565–571, 573, 574, 576, *579*
TICE, S. C. 117, *147*
Tomatoes
  Differential fertilization in **314**
  Flesh color and skin color **310**
  Flesh color and skin structure **312**
  Genetic relations among characters of **307**
    Stature and flesh color **309**
    Stature and skin color **309**
    Stature and skin structure **307**
  Inheritance in **305**
  Linkage groups in **315**
  Skin color and skin structure **313**
  Varieties of 305
Tradescantia virginiana
  Chromosomes in 60
TRAJKOVICH, H. 319, 320, 321, 323, 329, *333*
Triploid
  Drosophila **345**
    Constitution of **420**
    Synthesis of **421**
Triticum durum
  Hybrids between, and *T. vulgare* **285**
Triticum monococcum 301
Triticum polonicum 301
Triticum vulgare
  Hybrids between and *T. durum* **285**
Tropaeolum
  Pale green type in 319, 329
Twin population
  Intellectual level of **561**
Twins
  Average correlation between, of like sex **571**
  Cephalic index in 571, 577, 578
  Correlation between twins of unlike sex **570**
  Characteristics of symmetry—reversal groups of **564**
  Fraternal 570, 575
  Heterogeneity of twins of like sex **574**
  Heterogeneity of twins of unlike sex 575
  Identical 570, 575
  Resemblance between **569**
    Statistical examination of LAUTERBACH'S measurements on **569**
  Specialization of resemblance **576**
  Studies in resemblance in **525**
    Mental and physical traits **554, 565**
      Like-sex *vs* unlike sex-twins 555
      Native *vs* acquired traits **558**
      Resemblance in arithmetic 559
      Resemblance in general intelligence, reading and memory for digits 561
      Twins *vs* other sibs **557**
      Younger *vs* older twins **554**

Ultra-violet light
  Effect of, on pollen **377**
Unlike sex twins
  Identical palms in **548**
  Versus like-sex twins **555**
Urtica
  Pale green type in 319, 320
USHER, C. H. 240, 248, *252*

Venation
  Defective, in wasp **91**
    Higher in male than in female wasps 93
DEVRIES, HUGO, 183, 194, *196*, *211*–218, 221, *222*, 588

WACHTER, W. L. 17, 24, 27, 30, *31*, 580
WALKER, JOSEPH R. **593**
WALLACE, E. M. 141
WARD, L. 474, 492, *507*
Wasp
  Inheritance in **33**
Waxy character
  Effect fo sugary gene on **368**
  Gametophyte generation **360**
  Inheritance of in maize 360
  Modifying factor for **367**
  Tests for, in female gametophyte 361
Waxy seeds
  Cause of deficiency in **369**
WEATHERWAX, P. 86, *89*, 362, *388*
WEINSTEIN, A. 133, *147*, 484, *507*
WENTZ, JOHN B. **395**
Wheat
  Behavior of intermediate segregates in hybrids of **295**
  Chromosome numbers in **296**
  Correlation in hybrids of **285, 290**
  Incompatability of chromosomes in hybrids of 301–303
  Inheritance of characters in **286**
  Plant characters in **296**
  Rust resistance and other characters in **298**
WHITE, O. E. **197,** 199, *210*, 278, *284*
White plumage in pigeons
  Dominant white 593, **597**
  Factors for, 593, 594
  Inheritance of **593**
  Mottle black 594, **602**
  Mottle white, 594, **601**
  Previous work on **595**
  Recessive white spotting 593, **599**
WHITING, ANNA R. **33,** 103, 111, *116*
WHITING, P. W. 33, 34, 36, 37, 42, 48, *58*, 91, 92, 93, 101, 103, 105, 107, 111, 112, 113, 115, *116*, 224, 239, 250, *252*
WHITMAN, C. O. 249, *252*
WILDER, H. H. 528, 535, 543, 549, 567, *568*
WILL, O. H. 323
WILLSTÄTTER, R. 306, *317*
WILSON, R. E. 380, *388*
WINGE, O. 278, 283, *284*
WINKLER, H. 61, *71*, 283, *284*, 588, *592*
WOLFSON, A. M. 1, 2
WRIEDT, CHR. 249, *252*
WRIGHT, SEWALL, **223,** 224, 226, 229, 233, 239, *252*
WYLIE 34

Xanthoyphyll
  Content in pale green types of maize 320
X chromosomes
  Association of attached in Drosophila **411,** 412, 413
  Crossing over in, of triploid females of Drosophila **418**
  Crossing over types in associated **433–439**
  Detachments of, in Drosophila **415**
  Genes associated in emerging **431,** 432
  Point of attachment of **414**
X-Rays, Drosophila 403, 419, 431
  Effect of on crossing over **470,** 523
  Reaction second chromosome to light dose of **491**
    Effect on coincidence in 492
    Effect on crossing over frequency in 490
    Effect crossover inhibitors in **492**
  Reaction third chromosome to light dose of **480**
    Effect on coincidence in 483
    Effect on crossing over frequency in 485
  Reaction third chromosome to heavy dose of **486**
    Effect on coincidence in 488

Yellow pigment, maize
  Arrangement of linked genes for **454**
  Genetic factors for **442**
  Linkage relations of **442**
  Relation to albino genes **442, 448, 450**
  Relation to factor *R* **451**
  Relation to green pigments **454**

YULE, G. U. 366, *388*

ZELENY, CHAS. 100, *116*, 120, 122, 123, 133, 134, *147*, *568*
Zygotes
  Selective elimination of **370**
Zygotic distribution
  Attempts to modify **377**